

REMARKS

Upon entry of the foregoing Amendment, claims 1-32 are pending in the application. Claims 1-6 and 8-32 have been amended. No claims have been cancelled or newly added. Applicants believe that this Amendment does not add new matter. In view of the foregoing Amendment and the following Remarks, allowance of all the pending claims is requested.

REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

The Examiner has rejected claims 9-16 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner alleges that there is insufficient antecedent basis for the term "computer-readable medium," as recited in claims 9-16, for example. Office Action, page 4.

Solely for purposes of expediting prosecution of this application, and without acknowledging the propriety of the alleged basis for the rejection, Applicants have amended claims 9-16 to further clarify the invention. In particular, independent claim 9 has been amended to recite a "computer for agent-based monitoring of network devices," wherein the computer comprises "at least one processing device configured to execute computer-executable instructions." In addition, Applicants note that antecedent basis for these terms is provided in Applicants' Specification (e.g., page 6, lines 15-25, and page 9, lines 21-25).

Accordingly, for at least the reason that amended claims 9-16 do particularly point out and distinctly claim the subject matter which Applicants regard as the invention, Applicants request that the Examiner withdraw this rejection of the claims.

REJECTION UNDER 35 U.S.C. § 101

The Examiner has rejected claims 9-16 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. In particular, the Examiner alleges "the claims and the supporting portions of the specification only have software elements (e.g., memory that is 'storage component' which appear to be a software framework, a processor which could be a

'software process')." Thus, the Examiner alleges "claims 9-16 does [sic] not classify into any of the four statutory [categories], and is rejected under [35] USC 101." Office Action, page 4.

Solely for purposes of expediting prosecution of this application, and without acknowledging the propriety of the alleged basis for the rejection, Applicants have amended claims 9-16 to further clarify the invention. In particular, independent claim 9 has been amended to recite, among other things, a "computer for agent-based monitoring of network devices" that comprises "at least one processing device configured to execute computer-executable instructions."

Accordingly, for at least the reason that amended independent claim 9 recites at least one "*processing device*," which clearly encompasses tangible hardware elements, amended claims 9-16 are directed to statutory subject matter. Applicants therefore request that the Examiner withdraw this rejection of the claims.

REJECTION UNDER 35 U.S.C. § 103

A. CLAIMS 1-5, 8-13, 16-21, AND 24-32

The Examiner has rejected claims 1-5, 8-13, 16-21, and 24-32 under 35 U.S.C. § 103 as allegedly being obvious over U.S. Patent No. 6,349,306 to Malik et al. ("Malik") in view of U.S. Patent No. 5,546,595 to Norman et al. ("Norman").¹ This rejection is improper and must be withdrawn for at least the reason that the references relied upon, either alone or in combination, fail to disclose, teach, or suggest each and every feature of the claimed invention.

More particularly, Malik and Norman, either alone or in combination, fail to disclose, teach, or suggest at least the combination of features that includes "selecting one of the plurality of agent templates that comprises the class hierarchy for the network device class corresponding to the type for the selected network device, wherein the plurality of instance level class definitions in the class hierarchy for the selected agent template represent the hardware characteristics for the one or more discovered network devices of the type

¹ Applicants note that the Examiner has not identified claims 28-32 in the heading for this rejection on page 5 of the Office Action. However, the Examiner has included claims 28-32 in the discussion under the heading for this rejection. See Office Action, page 10, numbered paragraph 6. Thus, Applicants are assuming that the Examiner

corresponding to the network device class and the type for the selected network device,” and “instantiating a plurality of agent objects from the plurality of instance level class definitions in the class hierarchy for the selected agent template, wherein the plurality of instantiated agent objects correspond to the plurality of hardware characteristics for the selected network device, and wherein the plurality of instantiated agent objects are configured to monitor the plurality of hardware characteristics for the selected network device,” as recited in independent claim 1, for example.

The Examiner alleges that Malik teaches “a plurality of agent templates corresponding to the discovered network devices,” wherein “each of the agent templates [are] associated with a class of network devices” and comprise “a definition . . . of that class of network devices.” Office Action, page 5. Applicants disagree with the Examiner’s assessment for at least the reason that the “templates” described in Malik “are used to screen a model in order to retrieve values for each of the attributes” of an associated network device (Abstract). In other words, Malik indicates that the templates generally include “a list of attributes for a device of a certain model type” (col. 3, lines 24-33), but does not disclose, teach, or suggest that the templates “comprise a class hierarchy having a plurality of instance level class definitions” that can be instantiated into agent objects configured to monitor a plurality of hardware characteristics for a particular network device.

For example, Malik generally provides that “a network management system 14, such as Spectrum™, continually monitors the network and maintains a database of information about every managed device in the network,” and that a “configuration manager then captures the values of the attributes listed in the template, by retrieving the values from the Spectrum™ model” (col. 3, lines 10-18 and 34-36). That is, the claimed invention recites “instantiating a plurality of agent objects from the plurality of instance level class definitions in the class hierarchy for the selected agent template,” wherein the agent objects instantiated from the agent template “are configured to monitor the plurality of hardware characteristics for the selected network device.” In contrast, Malik employs a Spectrum™ network management

intended to identify claims 28-32 as being subject to this rejection.

system in combination with a configuration manager to monitor the hardware characteristics of a particular network device, while the "template functions like a filter, blocking out unwanted attributes (IP address, for example) and capturing the values of those attributes found in the template" (col. 3, lines 36-39).

As such, Malik fails to disclose, teach, or suggest at least the foregoing features recited in independent claim 1 for at least the reason that the claimed "agent template" includes various instance level class definitions that can be instantiated into agent objects that are configured to monitor the hardware characteristics for a particular network device, whereas the "templates" described in Malik do not include any object-oriented constructs that can be instantiated into agent objects that perform the function of monitoring network device hardware characteristics. In fact, Malik does not disclose, teach, or suggest that the "templates" perform any monitoring function at all, but rather describes other components that perform the monitoring function with the templates then being used to filter the attributes monitored by the other components. Accordingly, for at least these reasons, Malik fails to disclose, teach, or suggest at least the foregoing features recited in independent claim 1, for example.

Norman fails to cure the foregoing deficiencies of Malik for at least the reason that Norman does not disclose, teach, or suggest a plurality of agent templates that include a plurality of instance level class definitions that can be instantiated into "a plurality of agent objects . . . configured to monitor the plurality of hardware characteristics for the selected network device." While acknowledging that Malik does not explicitly teach agent templates that comprise a hierarchical definition for a particular class of network devices, the Examiner alleges that Norman discloses "agent templates comprising a hierarchical definition of the network device." Office Action, page 6. However, Applicants note that col. 25, lines 30-65 in Norman, which the Examiner references as allegedly disclosing a "hierarchical definition" for a class of network devices, only describes the hierarchical definition in very general terms.

That is, independent claim 1 specifically recites that "each of the agent templates comprise a class hierarchy having a plurality of instance level class definitions for one of the network device classes discovered in the network," and that "the plurality of instance level

class definitions represent the hardware characteristics for the one or more discovered network devices of the type corresponding to the respective network device class.” On the other hand, the passages in Norman that the Examiner cites as allegedly disclosing the claimed “class hierarchy” states in general terms that “each of the hardware components [in a computer system are] . . . connected in a hardware hierarchy” (col. 26, lines 30-65). However, the cited passages in Norman do not provide any further detail relating to the organization of the “hardware hierarchy,” let alone that the hardware hierarchy include a plurality of instance level class definitions that can be instantiated into “a plurality of agent objects . . . configured to monitor the plurality of hardware characteristics for the selected network device.”

Accordingly, for at least the reason that the cited passages in Norman are silent regarding the manner in which the “hardware hierarchy” is organized, and for at least the additional reason that Norman does not contain any other passages that provide further detail regarding the organization of the “hardware hierarchy,” Norman fails to cure the foregoing deficiencies of Malik.

In addition, even assuming *arguendo* that Norman could be characterized as describing a hardware hierarchy similar to the “class hierarchy” for the claimed “agent templates” (which Applicants do not concede), Norman nonetheless fails to disclose, teach, or suggest that the hardware hierarchy includes various class definitions that can be instantiated into agent objects that are configured to monitor specific hardware characteristics for a particular network device. For example, to the extent that Norman describes “a plurality of hardware object models that represent hardware devices,” Norman only indicates that these hardware object models can be used to create hardware configuration objects that can be used “to **configure** the hardware devices” (Abstract). In other words, the hardware object models described in Norman are functionally limited to configuring network devices, wherein Norman only indicates that the system described therein “allows clients to change connections and characteristics of these devices” (col. 2, lines 58-63).

As such, because Norman does not disclose, teach, or suggest that the hardware configuration objects can be used “to monitor the plurality of hardware characteristics for the

selected network device," Norman further fails to cure the foregoing deficiencies of Malik for at least this reason.

Accordingly, for at least the foregoing reasons, Malik and Norman, either alone or in combination, fail to disclose, teach, or suggest each and every feature of independent claim 1. The rejection is therefore improper and must be withdrawn.

Independent claims 9, 17, and 25 include features similar to those set forth in independent claim 1. Claims 2-5, 8, 10-13, 16, 18-21, 24, and 26-32 depend from and add features to one of independent claims 1, 9, and 17. Thus, the rejection of these claims is likewise improper and must be withdrawn for at least the same reasons.

B. CLAIMS 6-7, 14-15, AND 22-23

The Examiner has rejected claims 6-7, 14-15, and 22-23 under 35 U.S.C. § 103 as allegedly being unpatentable over Malik in view of Norman in further view of U.S. Patent No. 6,061,724 to Ries et al. ("Ries"). This rejection is improper and must be withdrawn for at least the reason that the references relied upon, either alone or in combination, fail to disclose, teach, or suggest each and every feature of the claimed invention.

More particularly, for at least the reasons discussed above, Malik and Norman, either alone or in combination, fail to disclose, teach, or suggest at least the combination of features that includes "selecting one of the plurality of agent templates that comprises the class hierarchy for the network device class corresponding to the type for the selected network device, wherein the plurality of instance level class definitions in the class hierarchy for the selected agent template represent the hardware characteristics for the one or more discovered network devices of the type corresponding to the network device class and the type for the selected network device," and "instantiating a plurality of agent objects from the plurality of instance level class definitions in the class hierarchy for the selected agent template, wherein the plurality of instantiated agent objects correspond to the plurality of hardware characteristics for the selected network device, and wherein the plurality of instantiated agent objects are configured to monitor the plurality of hardware characteristics for the selected network device," as recited in independent claim 1, for example.

Ries fails to cure the foregoing deficiencies of Malik and Norman for at least the reason that the Examiner only relies upon Ries as allegedly “disclosing ‘comparing a threshold value to the retrieved information associated with one or more hardware characteristics.’” As such, even assuming *arguendo* that the Examiner correctly characterized Ries (which Applicants do not concede), Ries fails to disclose, teach, or suggest that the information used in the alleged comparison to a threshold value is retrieved by a plurality of agent objects instantiated from a plurality of instance level class definitions in a class hierarchy for a selected agent template, nor does Ries disclose, teach, or suggest that the information is retrieved by various objects that correspond to the plurality of hardware characteristics for the selected network device. In fact, the Examiner does not even allege that Ries discloses, teaches, or suggests these features.

Accordingly, for at least the foregoing reasons, Malik, Norman, and Ries, either alone or in combination, fail to disclose, teach, or suggest each and every feature of independent claim 1. Independent claims 9 and 17 include features similar to those set forth in independent claim 1. Claims 6-7, 14-15, and 22-23 depend from and add features to one of independent claims 1, 9, and 17. Thus, the rejection of these claims is improper and must be withdrawn for at least the foregoing reasons.

CONCLUSION


Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action. As such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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Respectfully submitted,

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